

## CLAIMS

What is claimed is:

1. A monoclonal antibody which specifically binds to an antigen on human  
5 melanoma cells, wherein (a) said antigen is specifically bound by the antibody produced by  
the hybridoma deposited under ATCC Accession No. 12588, (b) said antigen is present on the  
membrane and in the cytoplasm of human melanoma cells, and (c) said antigen is not present  
in normal non-activated human melanocytic cells and non-melanocytic human tumor cells in  
an amount that is detectable by the antibody produced by the hybridoma deposited under  
10 ATCC Accession No. 12588.

2. The monoclonal antibody of claim 1 that corresponds to the monoclonal  
antibody produced by the hybridoma deposited under ATCC Accession No. HB-12588.

15 3. The monoclonal antibody of claim 1 that is the antibody produced by the  
hybridoma deposited under ATCC Accession No. HB-12588.

4. A hybridoma which produces a monoclonal antibody of claim 1.

20 5. A hybridoma which produces a monoclonal antibody of claim 2.

6. The hybridoma deposited under ATCC Accession No. HB-12588.

7. An isolated, purified or enriched antigen, wherein (a) said antigen is  
25 specifically bound by the monoclonal antibody produced by the hybridoma deposited under  
ATCC Accession No. 12588, (b) said antigen is present on the membrane and in the  
cytoplasm of human melanoma cells, and (c) said antigen is not present in normal non-  
activated human melanocytic cells and non-melanocytic human tumor cells in an amount that  
is detectable by the antibody produced by the hybridoma deposited under ATCC Accession  
30 No. 12588.

8. A method for detecting the presence of melanoma in a human host, comprising  
the steps of:

combining a sample from said human host with antibodies which bind specifically to an antigen, wherein (a) said antigen is specifically bound by the antibody produced by the hybridoma deposited under ATCC Accession No. 12588, (b) said antigen is present on the membrane and in the cytoplasm of human melanoma cells, and (c) said antigen is not present in normal non-activated human melanocytic cells and non-melanocytic human tumor cells in an amount that is detectable by the antibody produced by the hybridoma deposited under ATCC Accession No. 12588; and

detecting formation of immune complexes as indicative of the presence of melanoma cells.

9. The method according to claim 8, wherein said sample is a tissue sample.

10. The method according to claim 9, wherein said tissue sample is paraffin-embedded or cryo-preserved.

11. The method according to claim 8, wherein said antibodies are monoclonal antibodies.

12. The method according to claim 11, wherein said monoclonal antibodies or second antibodies to said monoclonal antibodies are conjugated to a label which provides a detectable signal.

13. The method according to claim 12, wherein said label is a radionuclide, a fluorescer, a radioopaque dye, or an enzyme.

14. The method according to claim 13, wherein said radionuclide is technetium 99.

15. The method according to claim 8, wherein said sample is a bodily fluid.

16. The method according to claim 15, wherein said bodily fluid is blood.

17. The method according to claim 16, wherein said monoclonal antibody is a humanized monoclonal antibody.

18. A method for detecting the presence of melanoma in a human host, comprising  
5 the steps of: combining a sample from said human host with antibodies which are produced by a hybridoma cell line having ATCC accession number HB12588, and detecting formation of immune complexes as an indication of the presence melanoma cells.

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